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TO HQ USAF WASH DC//X000//

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1. DURING THE FLIGHT, 9 JUSTIFICATION BRIEFING TO AIR STAFF ON 26 AUG 1960, THE INTELLIGENCE REPRESENTATIVE ASKED THE FOLLOWING QUESTIONS: "WHAT DO WE THINK THAT THE SOVIETS KNOW ABOUT THE CAPABILITIES/ VULNERABILITIES OF THE DSP SYSTEM?" THE PURPOSE OF THIS MESSAGE IS TO PROVIDE AN ANSWER TO THAT QUESTION. THIS MESSAGE REFLECTS THE JOINT AOCOM J-2/J-3 RESPONSE TO THE ABOVE QUESTION.

2. THERE IS NO EVIDENCE TO DETERMINE THE EXTENT TO WHICH THE SOVIETS UNDERSTAND DSP; HOWEVER, WE MUST ESTIMATE THAT THE SOVIETS HAVE A VERY GOOD UNDERSTANDING OF THE DSP SYSTEM BASED ON THE SIGNIFICANT AMOUNT OF OPEN-SOURCE LITERATURE THAT HAS BEEN PUBLISHED ON DSP. A STUDY OF OPEN-SOURCE LITERATURE ON DSP LEADS US TO BELIEVE THE SOVIETS HAVE THE FOLLOWING TECHNICAL DETAILS:

PRIMARY MISSION IS TO PROVIDE EARLY WARNING AGAINST BALLISTIC MISSILE MASS ATTACK THAT IS: DETECT AND RECOGNIZE THE SIMULTANEOUS

LAUNCH OF HUNDREDS OF MISSILES.

D. THE LOCATION OF THE MISSION GROUND STATIONS.

SECONDARY MISSIONS ARE: TO PROVIDE ACTIVITY 6/

ON INDIVIDUAL MISSILE AND SATELLITE BOOSTER LAUNCHES AND
TO DETECT NUCLEAR EXPLOSIONS IN THE ATMOSPHERE AND IN SPACE.

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F. DETECTIONS OF MISSILE AND SATELLITE LAUNCHES HAVE APPARENTLY BEEN SUCCESSFUL, ALTHOUGH ACTUAL DATA HAS NOT PROVIDED.

8. PRIMARY SENSOR IS A HEAR-INFRARED TELESCOPE, WHICH DETECTS MISSILE EXHAUST PLUME RADIATION- b1

H. SPACECRAFT CONFIGURATION TO INCLUDE UPLINK AND DOWNLINK FREQUENCIES.

3. OPEN SOURCED LITERATURE ALSO POINTS OUT THE FOLLOWING LIMITS-

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TIONS AND VULNERABILITIES OF DSP:

- A. b1
- B. b1
- C. b1
- D. b1
- E. b1
- F. b1

4. IN SUMMARY, OPEN-SOURCE LITERATURE DOES NOT INCLUDE PRECISE ORBITAL PARAMETERS. HOWEVER, THE SOVIET OPTICAL SPACE TRACKING SYSTEM IS AS CAPABLE OF TRACKING THE DSP SATELLITES IN GEOSYNCHRONOUS ORBIT AS OUR BAKER-MUMFORD SYSTEM. THEREFORE, IT IS REASONABLE TO ASSUME THAT THE SOVIETS WOULD AT LEAST KNOW THAT DSP INFORMATION OBTAINABLE THROUGH THEIR OPTICAL TRACKING NETWORK AND THAT MADE AVAILABLE IN

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OPEN-SOURCE LITERATURE. A SUBSTANTIAL AMOUNT OF DSP INFORMATION IS CONTAINED IN OPEN-SOURCE LITERATURE. MUCH OF THIS LITERATURE IS THE RESULT OF A CONSCIOUS U.S. DECISION TO RELEASE INFORMATION ON OUR GENERAL MISSILE DETECTION CAPABILITY SO AS TO PROVIDE ADDITIONAL DETERRENCE TO A SOVIET FIRST STRIKE.

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